IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF NORTH CAROLINA Civil Action No.: 7:23-CV-00897

IN RE:)	
CAMP LEJEUNE WATER LITIGATION)	
This Pleading Relates to:)	
ALL CASES.)	
)	

PLAINTIFFS' LEADERSHIP GROUP'S MEMORANDUM OF LAW IN SUPPORT OF MOTION TO EXCLUDE CERTAIN OPINIONS OF ALEXANDROS SPILIOTOPOULOS, PH.D.

Pursuant to Federal Rule of Evidence 702 and *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 609 U.S. 579 (1993), and for the reasons that follow, the Plaintiffs' Leadership Group ("PLG") respectfully moves the Court to exclude certain opinions of Alexandros Spiliotopoulos, Ph.D.

I. <u>INTRODUCTION AND RELIEF SOUGHT</u>

This motion seeks an order excluding certain opinions of Alexandros Spiliotopoulos, Ph.D., a hydrogeologist employed by S.S. Papadopulos & Associates (SSPA) who was hired by the U.S. Department of Justice (DOJ) to critique Plaintiffs' expert reports regarding groundwater contamination at Camp Lejeune. [Ex. 1, Spiliotopoulos Deposition at 152:20-22 ("My work here is only to critique the quality of the modeling work and outcome of that modeling."); 188:16-18]

Although Plaintiffs take issue with all of Dr. Spiliotopoulos's opinions, Plaintiffs have filed – consistent with the case law – a targeted motion, and will employ cross examination to address the remainder of their disagreements. Plaintiffs move to exclude Dr. Spiliotopoulos's opinions

regarding:

- ATSDR's uncertainty and sensitivity analyses [Ex. 2, Spiliotopoulos Report, at 48-55; 87-92]
- Section 3.3 of Dr. Spiliotopoulos's report, titled "Timeline and Scientific Discourse on ATSDR's Camp Lejeune Water Modeling" [Ex. 2, Spiliotopoulos Report, at 16-24]
- ATSDR's intent and purpose with respect to conducting its water modeling [Ex. 2, Spiliotopoulos Report, at 18-20, 23, 25]
- How ATSDR's modeling results can or should be used by epidemiologists, doctors, or public health professionals [Ex. 2, Spiliotopoulos Report, at 25]
- ATSDR's modeling approaches that were allegedly "cutting-edge" and/or still in the research stages [Ex. 2, Spiliotopoulos Report, at 21, 26-27]
- Contaminant losses during treatment [Ex. 2, Spiliotopoulos Report, at 30]
- PCE source release start date at ABC One-Hour Cleaners [Ex. 2, Spiliotopoulos Report, at 36]
- "Erroneous" HP-634 concentration data [Ex. 2, Spiliotopoulos Report, at 80]

II. LEGAL STANDARD

Expert testimony is admissible only if the expert is qualified, the testimony is relevant, and the testimony is based on reliable scientific methodology. *Daubert v. Merrell Dow Pharms, Inc.*, 509 U.S. 579, 594-95 (1993); Fed. R. Evid. 702. Factors that guide the reliability analysis may include: (1) whether a theory or technique can be (or has been) tested; (2) whether it has been subjected to peer review and publication; (3) its potential rate of error; (4) whether standards exist to control the technique's operation; and (5) the degree of acceptance of the methodology within the relevant scientific community. *Daubert*, 509 U.S. at 593-94; *Nix v. Chemours Co. FC*, No. 7:17-CV-189-D, 7:17-CV-197-D, 7:17-CV-201-D, 2023 WL 6471690, at *7 (E.D.N.C. Oct. 4, 2023). The objective of the reliability requirement is to "make certain that an expert, whether basing testimony upon professional studies or personal experience, employs in the

courtroom the same level of intellectual rigor that characterizes the practice of an expert in the relevant field." *Kumho Tire Co., Ltd. v. Carmichael*, 526 U.S. 137, 152 (1999). Responsive and rebuttal experts are obligated to demonstrate that they used reliable methodology both in forming their opinions and in critiquing those of Plaintiffs' experts. *In re Ethicon Inc. Pelvic Repair Systems Prod. Liab. Litig.*, MDL No. 2327, 2018 WL 11245148, *3 (S.D. W.Va. July 26, 2018); *see also Funderburk v. South Carolina Elec. & Gas Co.*, 395 F.Supp.3d 695, 716-17 (D.S.C. 2019). As the proponent of Dr. Spiliotopoulos's testimony, DOJ has the burden of showing it to be reliable. Fed. R. Evid. 702 (requiring proponent to demonstrate "to the court that it is more likely than not" that, *inter alia*, "the testimony is the product of reliable principles and methods").

Another factor that courts consider in the reliability analysis is whether the expert developed his opinions expressly for the purpose of testifying. *Daubert v. Merrell Dow Pharms, Inc.*, 43 F.3d 1311, 1317 (9th Cir. 1995) ("One very significant fact to be considered is whether the experts are proposing to testify about matters growing naturally and directly out of research they have conducted independent of the litigation, or whether they have developed their opinions expressly for purposes of testifying."); Fed. R. Evid. 702, Advisory Comm. Notes (2000 Amendments); *Kadel v. Folwell*, 620 F.Supp.3d 339, 361 (M.D.N.C. 2022). "An 'expert' opinion is considered unreliable and inadmissible under *Daubert* where ... the expert has developed the opinions expressly for purposes of testifying in the case" *Wehling v. Sandoz Pharm. Corp.*, 162 F.3d 1158, at *5 (4th Cir. 1998) (unpublished).

III. QUALIFICATIONS OF DR. SPILIOTOPOULOS

Dr. Spiliotopoulos holds no professional licenses or certifications. He is not a licensed professional engineer or a licensed geologist. [Ex. 1, Spiliotopoulos Deposition, at 14:13-15:13] He has published only two articles in the peer-reviewed literature. *Id.* at 24:23-25:1. He has never

served on, or been invited to serve on, any expert peer review panel or the editorial board for any professional publication. *Id.* at 18:14-19; 22:12-23:4. This is the first time he has served as an expert in a litigation matter. *Id.* at 7:19-23.

All of Dr. Spiliotopoulos's professional work related to Camp Lejeune has been done for the purpose of litigation. *Id.* at 118:15-20; 120:8-17. He has not published in the literature or presented at any conferences regarding Camp Lejeune. Id. at 23:15-17; 25:17-19. In 2005, Dr. Spiliotopoulos, who was employed by SSPA at the time, attended the ATSDR's Expert Peer Review Panel on ATSDR's Historical Reconstruction Analysis, Camp Lejeune, North Carolina, as an observer. Id. at 120:25-121:2. Dr. Spiliotopoulos attended this two-day Peer Review Panel at the request of his supervisors at SSPA, including Dr. Remy Hennet, the DOJ's other retained expert on ATSDR's modeling. Id. at 115:8-21; 123:21-24. The Expert Peer Review Panel was held by ATSDR during the time frame that it was actively performing modeling in order to solicit feedback from the pertinent scientific community regarding its methodology. Id. at 121:15-122:13; 165:2-166:12; 170:12-171:2. Dr. Spiliotopoulos did not, during the two-day meeting or at any time thereafter, offer any advice, critique, or constructive feedback to ATSDR. Id. at 121:15-19; 122:21-125:20. The DOJ insists that all of Dr. Spiliotopoulos's and Dr. Hennet's work related to Camp Lejeune for the past twenty years has been performed for or in anticipation of litigation. DE-354 at 12-13; Ex. 3, 4/21/25 DOJ Letter, at 3.

IV. ARGUMENT

A. Dr. Spiliotopoulos's Opinions related to ATSDR's Uncertainty and Sensitivity Analyses are Unreliable and should be Excluded.

As an initial matter, there is no heightened admissibility standard or burden of proof for the uncertainty analysis in this case. Without citation to any authority, Dr. Spiliotopoulos asserts that "when models are used for hindcasting or forecasting conditions that are directly translated to substantially more important decisions, such as health impacts, the implications of model uncertainty have to be viewed more critically." [Ex. 2, Spiliotopoulos Report, at 28] Here, Dr. Spiliotopoulos is comparing the use of models to determine historical contaminant levels such as at Camp Lejeune to "the evaluation of the nature and extent of contamination and/or design of a system for containing a contaminant plume, aquifer restoration to certain cleanup standards, or evaluation of ultimate fate and transport of a contaminant plume." *Id.* The purpose of cleanup and containment is to protect human health and the environment from toxic exposures. Dr. Spiliotopoulos's proposition, without explanation or authority, of a heightened standard for the evaluation of model uncertainty for Camp Lejeune is insupportable and should be rejected.

Dr. Spiliotopoulos's opinions critiquing the uncertainty and sensitivity analyses conducted by ATSDR for Tarawa Terrace and Hadnot Point are not reliable. Dr. Spiliotopoulos fails to identify the standard or methodology that he is applying or that he believes ATSDR should have used. He cites no peer-reviewed literature or other authorities in support of his critiques of ATSDR's methodology. In addition, his criticisms of the Tarawa Terrace and Hadnot Point analyses are contradictory, and he fails to apply the same standards he uses in his non-litigation work to his opinions here.

For its uncertainty analysis for Tarawa Terrace, ATSDR employed a Monte Carlo simulation approach to conduct a probabilistic analysis to provide a range of possible model outcomes. ATSDR selected the most sensitive and uncertain parameters to use in its Monte Carlo analysis using the results from its sensitivity analyses. [Ex. 4, Chapter I, Parameter Sensitivity, Uncertainty and Variability Associated with Model Simulations of Groundwater Flow, Contaminant Fate and Transport and Distribution of Drinking Water, at I31]. Probability density functions (PDFs) for model input parameters for the Monte Carlo analysis were derived from the

use of an algorithm (PRNG, or Pseudo-Random Number Generator). The identification and justification for the mean, minimum, maximum and standard deviation values used to generate the PDFs are described in detail by ATSDR, including with citation to literature, as appropriate. *Id.* at I37-I42. For example, ATSDR explained how and why it chose the minimum and maximum values for the distribution coefficient, bulk density, and effective porosity. *Id.* at I37. The use of a probability density function "is an option within standard practice for random sampling of parameter values for a MC [Monte Carlo] analysis when information or theory indicates that a parameter has a statistically normal or log-normal distribution." [Ex. 5, Konikow Rebuttal Report, at 16, citing Zheng & Bennett, Applied Contaminant Transport Modeling (2nd ed. 2002)].¹

Without citation to authority of any kind, Dr. Spiliotopoulos criticizes the parameter ranges used by ATSDR for its Tarawa Terrace uncertainty analyses, claiming they are "narrow and biased." [Ex. 2, Spiliotopoulos Report, at 48] However, later in his report, when Dr. Spiliotopoulos turns to criticizing ATSDR's sensitivity and uncertainty analyses for Hadnot Point, he states that "for the Tarawa Terrace uncertainty analysis, ATSDR defined *reasonable ranges* for the calibrated parameter values." *Id.* at 87 (emphasis added). Moreover, earlier in his report, Dr. Spiliotopoulos criticizes ATSDR's Tarawa Terrace work on the grounds that "ATSDR selected a range of acceptable values for key parameters ... for their uncertainty analysis based solely on professional judgment and literature sources." *Id.* at 52. Then later in the report, Dr. Spiliotopoulos appears to change course again and endorse the Tarawa Terrace methodology: "Recall that in the Tarawa Terrace model, ATSDR defined a range of values for transport parameters based on literature

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¹ Dr. Konikow quotes Zheng & Bennett as follows: "The Monte Carlo method is by far the most commonly used method for analysis of uncertainty associated with complex numerical methods." (at page 353) "The heart of the Monte Carlo method is the generation of multiple realizations (or samples) of input parameters that are considered to be random variables. Each random variable is assumed to follow a certain probabilistic model characterized by its probability density function (PDF)." Ex. 5, Konikow Rebuttal Report, at 16.

sources and professional judgment. ATSDR proceeded with defining probabilistic distributions of these parameters, to calculate parameter values for the uncertainty analysis." *Id.* at 88. He then states: "For the Hadnot Point model, ATSDR did not conduct such an analysis for defining appropriate parameter ranges. Instead, ATSDR selected extreme values for the fate and transport parameters, corresponding to the 2.5 and 97.5 percentile of the parameter range." *Id.* While ATSDR identifies, explains, and applies consistent methodology, Dr. Spiliotopoulos does nothing more than disagree with ATSDR in an inconsistent and unsupported fashion.

According to Dr. Spiliotopoulos, there is no standard or guideline for how an uncertainty analysis for groundwater flow and contaminant transport should be done. [Ex. 1, Spiliotopoulos Deposition at 98:16-21] Similarly, Dr. Spiliotopoulos testified that there is no standard or guideline for how to conduct a sensitivity analysis; rather, "[t]his is something you evaluate on a case-by-case basis." *Id.* at 99:13-19. Plaintiffs disagree that no standards exist, but note that Dr. Spiliotopoulos, in making these statements, admits that his opinions are subjective – based on a criteria along the lines of "he knows it when he sees it."

Dr. Spiliotopoulos also fails to apply the same standards he uses in his non-litigation work to his opinions here. He was the lead modeler at the Hanford site, where plutonium was enriched in the 1940s as part of the Manhattan project, to develop a groundwater flow and contaminant transport model for a chromium 6 contaminant plume. [Ex. 1, Spiliotopoulos Deposition at 67:20-68:25; 328:24 (describing Hanford as "one of the most high profile" projects he has worked on in his career)] He used the model to develop a remedial optimization process design to achieve river protection and aquifer cleanup goals, including the decision to drill 70 extraction and injection wells. *Id.* at 78:14-17; 80:18-81:9; 91:13-20. For this model, and for this decision-making process, he performed a limited uncertainty analysis – for hydraulic conductivity (flow), but not for

contaminant transport. *Id.* at 85:22-87:7. He did not perform an uncertainty analysis or history matching regarding his model's chromium 6 predictions because he had "very limited data." *Id.* at 86:8-87:7. Dr. Spiliotopoulos criticized the uncertainty analysis for Hadnot Point as being limited to the effects of historical pumping variability, *id.* at 91-92; yet the uncertainty analysis for Hanford was at least as limited. And there is no indication that the parameter range used for Hanford met the not-too-narrow and not-too wide standard applied by Dr. Spiliotopoulos here.

Dr. Spiliotopoulos's opinions critiquing ATSDR's methodology fail all of the *Daubert* factors: his theory or technique has not been tested; it has not been subject to peer review; the error rate is unknown; he claims no relevant standards exist and therefore has applied none here; and he has pointed to nothing that indicates that his theory has been accepted or endorsed by the relevant scientific community. In the absence of pre-litigation research or peer review, it is imperative that an expert "point to some objective source – a learned treatise, the policy statement of a professional association, a published article in a reputable scientific journal or the like – to show that they have followed the scientific method, as it is practiced by (at least) a recognized minority of scientists in their field." *Daubert*, 43 F.3d at 1318-19. Dr. Spiliotopoulos has failed to point to any external source to validate his "methodology."

Significantly – and especially in contrast to the ATSDR, which performed nearly a decade of modeling work for Camp Lejeune entirely independent of any litigation – *all* of the work Dr. Spiliotopoulos has done to form his opinions in this case was done for or in anticipation of litigation, *i.e.*, "expressly for the purpose of testifying." *Daubert*, 43 F.3d at 1317. Moreover, Dr. Spiliotopoulos has not applied the same standards here as he uses in his non-litigation work. *See Kumho Tire*, 526 U.S. at 152. This, in combination with the five other *Daubert* factors bearing on reliability, weighs in favor of excluding Dr. Spiliotopoulos's opinions regarding the ATSDR's

uncertainty and sensitivity analyses.

The deficits in Dr. Spiliotopoulos's methodology are similar to the concerns expressed by the Supreme Court regarding the tire expert's methodology in *Kumho Tire*. As in *Kumho Tire*, Dr. Spiliotopoulos's mode of analysis is subjective. See Kumho Tire, 526 U.S. at 155. Nowhere does he explain how he can differentiate between an acceptable and unacceptable uncertainty and sensitivity analysis. See id. According to Dr. Spiliotopoulos, the range of parameters was too narrow for Tarawa Terrace and too wide for Hadnot Point, but he never says what an appropriate range is (i.e., what would be just right), or how ATSDR was supposed to know this (i.e., no standard, literature or other method has been identified). As in Kumho Tire, Dr. Spiliotopoulos has failed to identify other experts who use his range-of-parameter test or who make the fine distinctions he is making here to support his conclusions. See id. at 157 ("We have found no indication in the record that other experts in the industry use Carlson's two-factor test or that tire experts such as Carlson normally make the very fine distinctions about, say, the symmetry of comparatively greater shoulder tread wear that were necessary, on Carlson's own theory, to support his conclusions"). As in *Kumho Tire*, despite the prevalence of water modeling, Dr. Spiliotopoulos does not cite to any articles or papers that validate his approach. See id. ("Nor, despite the prevalence of tire testing, does anyone refer to any articles or papers that validate Carlson's approach.").

Dr. Spiliotopoulos's critique of ATSDR's uncertainty and sensitivity analyses was crafted at the DOJ's request for purposes of litigation and is not based on a reliable scientific methodology. He has not published in the peer-reviewed literature on this subject. His report does not cite to such literature, standards, or any other authority in his field in support of his criticisms. Rather, Dr. Spiliotopoulos's opinions are classic *ipse dixit* and should be excluded. *See General Elec. Co. v.*

Joiner, 522 U.S. 136, 146 (1997) ("nothing in either *Daubert* or the Federal Rules of Evidence requires a district court to admit opinion evidence that is connected to existing data only by the *ipse dixit* of the expert."); *Small v. WellDyne, Inc.*, 927 F.3d 169, 177 (4th Cir. 2019) ("Without testing, supporting literature in the pertinent field, peer reviewed publications or some basis to assess the level of reliability, expert opinion testimony can easily, but improperly, devolve into nothing more than proclaiming an opinion is true "because I say so.")

B. Factual Narratives and Opinions Disclaimed by Dr. Spiliotopoulos should be Excluded.

1. The narrative timeline should be excluded.

Section 3.3 of Dr. Spiliotopoulos's report, titled "Timeline and Scientific Discourse on ATSDR's Camp Lejeune Water Modeling" [Ex. 2, Spiliotopoulos Report, at 16-24] is a single-spaced, nine-page narration that includes more than twenty-five bullet points of favorable lengthy quotes from documents, lawyer arguments, and opinions that Dr. Spiliotopoulos disavowed during his deposition. Dr. Spiliotopoulos's summary of events, narration of select documents, and opinions on the intent, motive or state-of-mind of third parties are not proper topics of expert testimony and should be excluded.

For example, although Dr. Spiliotopoulos's timeline includes citations and quotes from epidemiology studies regarding Camp Lejeune, Dr. Spiliotopoulos testified that he has not read any such studies. [Ex. 2, Spiliotopoulos Report, at 24; Ex. 1, Spiliotopoulos Deposition, at 151:13-152:13] As set forth below, the timeline includes quotations and opinions regarding ATSDR's intent and purpose regarding its modeling; how the modeling can or should be used by health experts; and alleged "cutting-edge" methods used by ATSDR, all of which Dr. Spiliotopoulos

testified he is not opining on and/or are not relevant to his opinions.²

Factual narratives in expert reports that are divorced from expert opinions (or as in this case even knowledge) are inadmissible. *City of Huntington v. Amerisourcebergen Drug Corp.*, No. 3:17-01362, 2021 WL 1436672, at *3 (S.D. W.Va. April 15, 2021); *In re Davol, Inc./C.R. Bard, Inc., Polypropylene Hernia Mesh Prod. Liab. Litig.*, 546 F.Supp.3d 666, 677-79 (S.D. Ohio 2021) (excluding testimony based on portions of report that do not analyze, contextualize, or interpret pertinent historical recounting but rather amount to quoting uncomplicated and/or straightforward documents). The PLG requests that Dr. Spiliotopoulos be precluded from document narration with no application of expertise and from opining on the subject matters set forth in the timeline in Section 3 of his expert report.

2. Opinions regarding ATSDR's intent and purpose should be excluded.

Dr. Spiliotopoulos's report includes opinions regarding ATSDR's intent and purpose with respect to conducting its water modeling, including that "the water modeling was intended to support an epidemiological study and not for the purpose of making exposure assessments in individuals." [Ex. 2, Spiliotopoulos Report, at 23; *see also* 18-20, 25] However, Dr. Spiliotopoulos testified that whether ATSDR's modeling has in fact been used to make exposure assessments in individuals is not relevant to his opinions. [Ex. 1, Spiliotopoulos Deposition at 152:15-153:9; 154:1-10] In any event, expert testimony regarding motive, intent and state of mind is not admissible for multiple reasons, including that it is speculative and unhelpful to the finder of fact.

² This testimony, combined with several citations within the report to publications from the National Judicial College [Harter, et al. (2018) *Adjudicating Groundwater: A Judge's Guide to Understanding Groundwater and Modeling*. Reno, NV: National Judicial College (cited 3 times); National Judicial College and Dividing the Waters (2010) Hydrologic Modeling Benchbook], raises questions as to who wrote certain

portions of Dr. Spiliotopoulos's report. Despite requests from PLG, DOJ has not produced time records that would allow PLG and this Court to adduce the amount of time spent by Dr. Spiliotopoulos writing his report. DE-354 at 5-7; 11-12.

City of Huntington v. Amerisourcebergen Drug Corp., No. 3:17-01362, 2021 WL 1320716, at *2-3 (S.D. W.Va. April 8, 2021); In re Ethicon Inc. Pelvic Repair Systems Prod. Liab. Litig., MDL No. 2327, 2018 WL 11245148, *5 (S.D. W.Va. July 26, 2018).

3. Dr. Spiliotopoulos lacks qualifications to opine on the use of modeling results by health professionals.

Dr. Spiliotopoulos is not a doctor, epidemiologist, or public health expert. He has never worked on a project that had as its goal determining or measuring human exposure to contaminants. [Ex. 1, Spiliotopoulos Deposition at 67:9-12] He has not read any of the epidemiological studies regarding Camp Lejeune. *Id.* at 151:13-152:13. He testified that whether ATSDR's modeling was used to make exposure assessments in individuals is not relevant to his opinions. *Id.* at 152:15-153:9. He has no experience or expertise that qualifies him to offer an opinion as to whether or how a health professional can or should use ATSDR's modeling results to assess individual exposures to contaminants or to conduct an epidemiological study, and any such opinion should be excluded. *See, e.g., Cooper v. Lab. Corp. of Am. Holdings, Inc.*, 150 F.3d 376, 380-81 (4th Cir. 1998) (finding that a witness who had a "general knowledge of chemistry" and "experience with breath alcohol testing" was not an expert "in the field of urine alcohol testing"); *Kadel v. Folwell*, 620 F.Supp.3d 339, 360 (M.D.N.C. 2022) ("General knowledge,' skill, experience, training or education is insufficient to qualify an expert, and an expert qualified in one field may be unqualified to testify in others.").

4. Disclaimed opinion on "cutting-edge" modeling methods should be precluded.

Dr. Spiliotopoulos's report references modeling approaches of ATSDR that allegedly were "cutting-edge" and/or still in the research stages. [*E.g.*, Ex. 2, Spiliotopoulos Report, at 21, 26-27] When asked at deposition to identify these modeling techniques, he testified: "That's not part of the opinions that I provide. So I don't have an opinion on that." [Ex. 1, Spiliotopoulos

Deposition at 147:14-148:7] Therefore, Dr. Spiliotopoulos should be precluded from offering the opinion at any hearing or trial of this matter that any of ATSDR's modeling methodologies were cutting-edge or still in the research stages.

C. Parroted Opinions of Other Experts should be Excluded.

1. Dr. Spiliotopoulos should be precluded from offering Dr. Hennet's opinions regarding contaminant losses during treatment.

Dr. Spiliotopoulos offers the opinion that "ATSDR ignored any contaminant losses that would occur during treatment." [Ex. 2, Spiliotopoulos Report, at 30; 68 n.235] At deposition, Dr. Spiliotopoulos testified that he did not perform any calculations related to this opinion and that he is relying on the calculations and opinions of Dr. Hennet for this opinion. [Ex. 1, Spiliotopoulos Deposition at 192:19-193:10] Expert opinions that merely parrot or regurgitate another expert's opinion with no additional findings,³ like Dr. Spiliotopoulos's opinion here, are not helpful or admissible. *Funderburk v. South Carolina Elec. & Gas Co.*, 395 F.Supp.3d 695, 721-22 (D.S.C. 2019) (excluding repeated opinion of another expert where no additional corroboration, validation, or explanation was provided); *In re Davol, Inc./C.R. Bard, Inc., Polypropylene Hernia Mesh Prod. Liab. Litig.*, 546 F.Supp.3d 666, 676 (S.D. Ohio 2021).

2. Dr. Spiliotopoulos should be precluded from offering Dr. Brigham's opinion regarding the source release start date at ABC One-Hour Cleaners.

Dr. Spiliotopoulos offers the opinion that "The PCE Source Release Start Date at ABC One-Hour Cleaners Was Incorrect," but he testified that he relies entirely on the DOJ's retained historian Dr. Brigham for "the foundation for supporting this argument." [Ex. 2, Spiliotopoulos Report, at 36; Ex. 1, Spiliotopoulos Deposition, at 222:22-223:18] This is an additional parroting

³ Plaintiffs do not dispute that Dr. Spiliotopoulos may rely on the opinion of another expert such as Dr. Hennet assuming it would be appropriate to do so in his field, but take issue with Dr. Spiliotopoulos offering this opinion as his own with no additional corroboration, validation or explanation.

of another expert's opinion that the Court should exclude.⁴ See Funderburk, 395 F.Supp.3d at 721-22; Davol, 546 F.Supp.3d at 676.

D. Dr. Spiliotopoulos's Results-Driven Opinion regarding HP-634 Concentration Data should be Excluded.

Relying primarily on Dr. Hennet's report,⁵ Dr. Spiliotopoulos opines that a sample collected on January 16, 1985, at well HP-634 with a measurement of 1,300 ug/L TCE "should be considered erroneous." [Ex. 2, Spiliotopoulos Report, at 80] Other than reliance on Dr. Hennet, the sum total of Dr. Spiliotopoulos's analysis in support of this opinion is that HP-634 is upgradient from two contaminant sources that were near the well, "therefore, contamination could not have reached that well when it was not operational," and that there was a non-detection when the well was sampled on December 4, 1984, when it was operational. *Id*.

Dr. Spiliotopoulos's bare-bones analysis is not based on sufficient facts or data, nor is it the product of reliable principles and methods. Fed. R. Evid. 702. Dr. Spiliotopoulos did not perform any calculations or provide any measurements in support of his assertion that "contamination could not have reached that well when it was not operational." While the well was operational, a cone of depression would have formed around it, which results in the movement of water and contaminants from nearby areas towards the well. [Ex. 5, Konikow Rebuttal Report, at 22] This is demonstrated at Figure A19, where, as of November 1984, TCE is shown to have moved very close to Well 634 from its previous location in the industrial area in all three model layers, and specifically, in Model Layer 3, the TCE plume is coincident with the location of well

⁴ Plaintiffs do not dispute that Dr. Spiliotopoulos may rely on the opinion of another expert such as Dr. Brigham assuming it would be appropriate to do so in his field, but take issue with Dr. Spiliotopoulos offering this opinion as his own with no additional corroboration, validation or explanation.

⁵ Dr. Spiliotopoulos concludes his analysis on this issue by stating: "See Dr. Hennet's expert report for a more detailed discussion of this issue." Ex. 2, Spiliotopoulos Report, at 80.

⁶ Plaintiffs dispute that HP-634 was not operational on January 16, 1985. See Ex. 6, Maslia Rebuttal Report, at 19-23.

HP-634. *Id.* at 22-23. If HP-634 had been shut down as of January 16, 1985, which Plaintiffs do not concede, there would have been a slow recovery period, during which water and contaminants would continue to move toward well HP-634. *Id.* Dr. Spiliotopoulos provides no calculations, evidence, or explanation as to why the contaminants could not have reached HP-634 during the short time frame after it was allegedly shut down until January 16, 1985. Nor has Dr. Spiliotopoulos explained the relatively high levels of DCE and VC in the same sample, which refute the 1,300 ug/L TCE measurement being an isolated "outlier." *Id.*

The non-detect measurement from December 4, 1984 also does not support Dr. Spiliotopoulos's assertion. The value of contaminants measured at Camp Lejeune changed by similarly large magnitudes at other wells in short time frames. For example, the value of PCE at TT-26 changed from 1580 to 3.8 ug/L in successive samples taken 4 weeks apart, mirroring the change at HP-634 from non-detect to 1,300 ug/L in a similar 4-week time frame. *Id.* This variability in sampling data is characteristic of groundwater-quality data and is expected at sites like Camp Lejeune.

Dr. Spiliotopoulos's labeling of the 1300 ug/L sample as "erroneous" without the identification of a reliable methodology, performance of any calculations or measurements, or citation to authority is speculative and unreliable and is the sort of cherry-picking of data that the Fourth Circuit rejects. "Result-driven analysis, or cherry-picking, undermines principles of the scientific method and is a quintessential example of applying methodologies (valid or otherwise) in an unreliable fashion. '[C]ourts have consistently excluded expert testimony that 'cherry-picks' relevant data,' because such an approach 'does not reflect scientific knowledge, is not derived by the scientific method, and is not 'good science." *In re Lipitor*, 892 F.3d 624, 634 (4th Cir. 2018) (citations omitted).

To the extent that Dr. Spiliotopoulos relies on Dr. Hennet's opinion here, simultaneously with the filing of this motion the PLG has filed a motion to exclude Certain Opinions of Dr. Remy Hennet, including his opinions regarding HP-634, and the PLG incorporates that analysis into this memorandum. In addition, Dr. Spiliotopoulos should not be permitted to merely parrot or regurgitate Dr. Hennet's opinions with no additional reliable findings. *See Funderburk*, 395 F.Supp.3d at 721-22; *Davol*, 546 F.Supp.3d at 676.

CONCLUSION

For the foregoing reasons, the PLG respectfully requests the Court to exclude the opinions discussed herein offered by Alexandros Spiliotopoulos, Ph.D.

[Signature page to follow.]

DATED this 29th day of April 2025.

/s/ J. Edward Bell, III

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CERTIFICATE OF SERVICE

I, J. Edward Bell, III, hereby certify that the foregoing document was electronically filed on the Court's CM/ECF system on this date, and that all counsel of record will be served with notice of the said filing via the CM/ECF system.

This the 29th day of April 2025.

/s/ J. Edward Bell, III

J. Edward Bell, III